

C
H26wZar
1920/21

D. F. Reinisch

OFFICIAL REGISTER OF HARVARD UNIVERSITY

VOL. XVII

JUNE 23, 1920

NO. 35

FACULTY OF ARCHITECTURE SCHOOL OF ARCHITECTURE

1920-21



PUBLISHED BY THE UNIVERSITY
CAMBRIDGE, MASSACHUSETTS

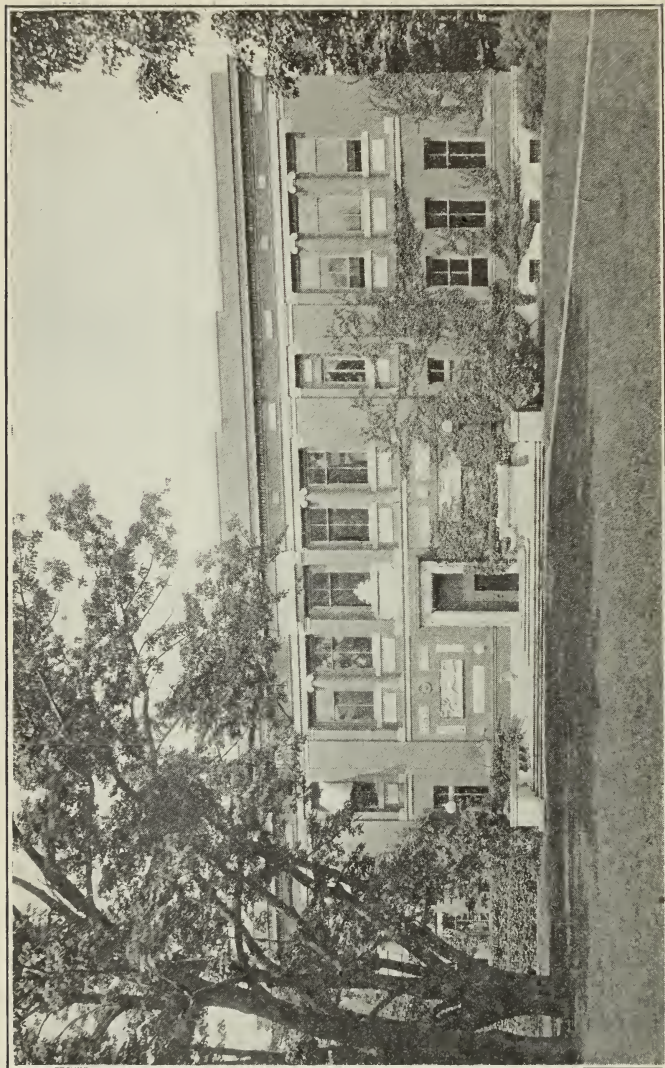
FACULTY OF ARCHITECTURE

SCHOOL OF ARCHITECTURE

1920-21



CAMBRIDGE
PUBLISHED BY HARVARD UNIVERSITY
1920



NELSON ROBINSON JR. HALL
OCCUPIED BY THE SCHOOLS OF ARCHITECTURE AND LANDSCAPE ARCHITECTURE

CONTENTS

	PAGE
ADMISSION	9
BUILDING AND EQUIPMENT	36
CALENDAR	6
COURSES	26
DEGREES	16
FACULTY	47
FELLOWSHIPS :	
Regulations	19
Past holders	43
LIST OF STUDENTS	45
METHODS OF INSTRUCTION	12
OFFICERS OF INSTRUCTION	4
PREPARATORY STUDIES	10
PRIZES AND MEDALS	24
PROMOTION	14
SCHOLARSHIPS :	
For Regular Students	55
For Special Students	23
SPECIAL STUDENTS :	
Admission	22
Certificate	22
Scholarships	23
SUMMER COURSES	34
TUITION FEES	49

THE SCHOOL OF ARCHITECTURE

OFFICERS OF INSTRUCTION

CHARLES WILSON KILLAM, *Associate Professor of Architectural Construction and Chairman of the Council of the School of Architecture.*

JOHN SANFORD HUMPHREYS, *Associate Professor of Architectural Design.*

CHARLES HOWARD WALKER, *Lecturer on the History of Architecture.*

WILLIAM GRAVES PERRY, A.B., S.B. in Arch., Architecte Diplômé par le Gouvernement Français, *Instructor in Architectural Design.*

HENRY ATHERTON FROST, A.B., M.Arch., *Instructor in Architecture.*

HAROLD BROADFIELD WARREN, *Instructor in Freehand Drawing.*

HERMANN DUDLEY MURPHY, *Instructor in Freehand Drawing.*

JOHN WILSON, *Instructor in Modelling.*

KENNETH JOHN CONANT, A.B., M.Arch., *Instructor in Architectural Design.*

WILLIAM STANLEY PARKER, S.B. in Arch., *Lecturer on Architectural Practice.*

RUTH V. COOK, *Librarian of the School of Architecture.*

1920

JULY						
Su	Mo	Tu	W	Th	Fr	Sa
..	..	..	..	1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31
..	..	..	..	..	..	..

AUGUST

1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31	..	..	..	..
..	..	..	..	..	..	..

SEPTEMBER

..	..	..	1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	..	..
..	..	..	..	..	..	..

OCTOBER

..	..	..	..	..	1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31	..	..	..	..	..	..

NOVEMBER

..	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	..	..	..	..
..	..	..	..	..	..	..

DECEMBER

..	..	..	1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	..
..	..	..	..	..	..	..

1921

JANUARY						
Su	Mo	Tu	W	Th	Fr	Sa
..	..	..	..	..	..	1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31	..	..	..	..	..

FEBRUARY

..	..	1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	..	..	..	..	..
..	..	..	..	..	..	..

MARCH

..	..	1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31	..	..
..	..	..	..	..	..	..

APRIL

..	..	..	..	..	1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
..	..	..	..	..	..	..

MAY

1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31	..	..	..	..
..	..	..	..	..	..	..

JUNE

..	..	..	1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	..	..
..	..	..	..	..	..	..

JULY						
Su	Mo	Tu	W	Th	Fr	Sa
..	..	..	..	..	1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31	..	..	..	..	..	..

AUGUST

..	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31	..	..	..
..	..	..	..	..	..	..

SEPTEMBER

..	..	..	..	1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	..
..	..	..	..	..	..	..

OCTOBER

..	..	..	..	..	..	1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31	..	..	..	..	..

NOVEMBER

..	..	1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	..	..	..
..	..	..	..	..	..	..

DECEMBER

..	..	..	..	1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31
..	..	..	..	..	..	..

CALENDAR

The Academic Year begins on the Monday preceding the last Wednesday in September. The second half-year begins on the Monday following the second Sunday in February. The annual Commencement is held on the Thursday preceding the last Wednesday in June.

1920.

- Sept. 27, Mon.* **Academic Year begins** in all departments of the University. Payment of the first instalment of the tuition fee is required on or before this date.
- Oct. 12, Tues.* Columbus day : a holiday.
- Nov. 25, Thurs.* Thanksgiving day : a holiday.
- Nov. 26, Fri.* Second instalment of the tuition fee is due on or before this date.

RECESS FROM DEC. 23, 1920, TO JAN. 2, 1921, INCLUSIVE.

1921.

- Jan. 31, Mon.* Mid-year examinations begin in the School of Architecture.
- Feb. 7, Mon.* SECOND HALF-YEAR BEGINS in the School of Architecture.
- Feb. 10, Thurs.* The first term-bill is due on this date. Third instalment of the tuition fee is due on or before this date.
- Feb. 22, Tues.* Washington's Birthday : a holiday.
- Mar. 31, Thurs.* Last day for re-engaging College Rooms for 1921-22.

RECESS FROM APRIL 17 TO APRIL 23, INCLUSIVE.

- April 25, Mon.* Fourth instalment of the tuition fee is due on or before this date.
- May 2, Mon.* Last day for receiving applications for College Rooms for 1921-22.
- May 30, Mon.* Memorial Day : a holiday.
- May 31, Tues.* Last day upon which candidates for degrees which carry a graduation fee may give notice that they have abandoned their candidacy for the degree.

June 22, Wed. All dues of candidates for degrees must be paid on or before this date.

June 23, Thurs. **Commencement.**

SUMMER VACATION, FROM COMMENCEMENT DAY TO SEPTEMBER 25,
INCLUSIVE.

July 5, Tues. Summer School of Architecture and of the Faculty of Arts and Sciences opens.

July 20, Wed. Payment of the second term-bill is due on or before this date.

Sept. 26, Mon. **Academic Year begins** in all departments of the University. Payment of the first instalment of the tuition fee is required of all students in the University on or before this date.

HISTORY OF THE SCHOOL OF ARCHITECTURE

The first instruction in architecture at Harvard University was the courses in the history of Greek and Roman architecture given by the late H. LANGFORD WARREN in 1893-94.

In 1894 courses in the history of mediaeval architecture, architectural design and drawing were added, and were made a part of the Lawrence Scientific School, a branch of undergraduate study in the University.

In 1895 courses in the history of Renaissance and Modern architecture, descriptive geometry, shades and shadows, perspective, and stereotomy were added.

Courses in construction were given at first by instructors in engineering and later by instructors in the department itself.

In 1906 the Graduate School of Applied Science was established with architecture as a department giving the degree of Master in Architecture to students who entered with a bachelor's degree. The students who were at that time studying for the S.B. in Arch. were allowed to finish the work for their degree. The first degrees of Master in Architecture were awarded in 1907.

In 1912 the School of Architecture and Landscape Architecture was organized as a separate school under the Faculty of Graduate Schools of Applied Science.

In 1914 the Faculty of Architecture was established to include the Schools of Architecture and Landscape Architecture and has entire control of curricula and degrees for the two schools.

GENERAL STATEMENT

The School of Architecture of Harvard University aims to give a thorough professional training in architecture to men who have had the advantage of a college education as preparation.

Such academic training, while it prepares a man for efficient service in an architect's office as draughtsman, aims especially to lay the necessary foundation for ultimate independent practice. Practical experience in an architect's office is an essential part of an architect's training and several years of such experience are usually necessary before a man can regard himself as qualified to enter upon independent professional practice. The summer vacation may well be, in part at least, employed by work in architects' offices.

Options. — Students have a choice between two courses of study; Option 1, leading to the degree of Master in Architecture and Option 2, leading to the degree of Master in Architecture in Architectural Engineering. Option 1 should be chosen by those whose interests are primarily in planning and design but, as indicated later by the detailed requirements for this option, a thorough course in construction is included to prepare the student for the ordinary structural problems which make up the great bulk of building work. Option 2 should be chosen by those whose interests are primarily mathematical, structural, and mechanical but, as indicated later by the detailed requirements for this option, a sufficient course in architectural history and design is included to insure an intelligent understanding of the problems of the designer of buildings.

Regular Students. — The requirement for admission as a regular student is the possession of a bachelor's degree from a college or scientific school in good standing. No other preparation is insisted upon, but those students who while in college have anticipated certain necessary subjects (see page 11) may thereby shorten the period of residence required for the degree, or gain time for further specialization. For those students who have followed the usual college course without any technical subjects a period of residence and study of three years is normally required to win the professional degree. This period may be longer or shorter according to the student's industry and ability and the nature and completeness of his previous preparation. The degree of Master in Architecture or

Master in Architecture in Architectural Engineering is granted to students, admitted to candidacy for the degree, who adequately complete the required work.

The University offers for competition each year to its graduates in architecture a travelling fellowship of the annual value of eleven hundred dollars, tenable for two years, which enables the holder to supplement his training by two years of travel and study in Europe under the general direction of the School, and with the privilege of the facilities of the American Academy in Rome. (For detailed information, see p. 19.)

Special Students.—Special students in Option 1 not candidates for the degree are also admitted to the School of Architecture when they can convince the Council of the adequacy of their preparation. They must have had a high-school education or its equivalent, must have had three years' experience as draughtsmen in architects' offices or its equivalent, and must be over twenty-one years of age. (See page 22.) A certificate of accomplishment is granted to special students who fulfil the requirements, involving ordinarily not less than two years of residence and study (see page 22).

Summer School.—Besides the work of the regular term the School offers instruction in architectural design during the Summer, open to any men who are properly qualified to profit by the instruction. (See page 34.)

Landscape Architecture.—The School of Landscape Architecture is under the same faculty as the School of Architecture and shares in the use of Robinson Hall. Students of Architecture can therefore conveniently take landscape courses in addition to their required architectural courses and without additional expense.

RECOMMENDATIONS AS TO PREPARATORY STUDIES

While the holding of a bachelor's degree will admit to regular standing, it is recommended that a student intending to study architecture pursue in college certain courses which will prepare him for his subsequent professional work. Such studies are usually offered in any good college or scientific school. Any deficiencies in preparation may be made good after entrance to the School by taking the appropriate courses.

As a student may be uncertain during his college work as to whether he is to enter the design or structural branches of the profession, he may well include in his undergraduate work such studies as will fit him for either option as outlined below. These studies have the further advantage of preventing a too narrow specialization even if the student never enters the professional schools.

For Option 1 this preparation, which must be made good unless anticipated, includes freehand drawing, descriptive geometry, shades and shadows and stereotomy, perspective, plane trigonometry and logarithms, solid geometry, and elementary physics. Highly desirable subjects in such a college preparation are chemistry, the modern languages (particularly French and German), the history of Europe, and the history of the fine arts. Credit will be given for any adequate work in architectural drawing or design which may have been done elsewhere before entering the School.

For Option 2 this preparation, which must be made good unless anticipated, includes mathematics through the calculus, college physics, college chemistry, descriptive geometry, mechanical drawing, and mechanics. Study of the history of Europe is highly desirable.

Students who hold a Bachelor's degree in either Architecture or Civil Engineering from a recognized college or scientific school will be permitted to enter with the standing to which, in the opinion of the Council, their previous training entitles them.

Students in Harvard College who intend after graduation to study in the School of Architecture should select their courses in College with the advice of the Chairman of the School of Architecture, who will be glad at all times to aid them in this selection.

Graduates in architecture of scientific schools, or those who show equivalent attainment, may, under certain circumstances, complete the work for the degree in one year or one year and a half. *The degree will in no case be granted except after one full year of residence and study in the School of Architecture.* Students who have pursued the usual college course without any professional preparation will normally require three years of residence and study for the degree in Option 1, but this period may be shortened if some of the elementary professional subjects have been anticipated, or by summer work. In some cases a longer period may be necessary.

A student entering Harvard with the intention of obtaining the degree of Master in Architecture in Architectural Engineering in the shortest possible time should enter the Harvard Engineering School, taking meanwhile such courses in Harvard College as will best prepare him for architectural design. After obtaining the degree of Bachelor of Science in Civil Engineering he would take the required courses in the School of Architecture, together with some fifth-year work in the Engineering School, in all taking normally about a year and a half to obtain the degree of Master in Architecture in Architectural Engineering.

The Chairman of the School will welcome the opportunity to advise by correspondence students in other colleges who may desire to consult him as to their choice of college studies with a view to the subsequent professional study of architecture.

METHODS OF INSTRUCTION

The instruction is planned especially to meet the needs of college graduates and advanced special students, with a view of giving in the most thorough way the technical training required in preparation for the professional career of architect. The plan of study recognizes that architecture is essentially a fine art the practice of which must be based on a thorough knowledge of construction and of the practical requirements of buildings. Great stress is laid on a thorough basis of constructive knowledge. The history and principles of architecture, with constant cultivation in freehand drawing, are taught as the necessary basis for work in architectural design. The aim is to give students such a knowledge of the history of architecture and of the growth and meaning of architectural forms as may enable them ultimately to use precedent, not blindly, but intelligently and with freedom.

Continued practice and instruction in freehand drawing and modelling are provided as the necessary means of architectural expression and as essential to the study of architectural form. The instruction in freehand drawing includes practice in drawing from the cast, water-color, sketching from nature and drawing from the life.

The study of design is pursued mainly by means of problems and criticisms. The programme of studies is so arranged as to

allow students to give the greater part of the afternoons to the work in the draughting room. After each problem is finished the drawings will be judged and marked by a jury, consisting of the Council of the School with the occasional addition of members of the Visiting Committee of Architects appointed by the Board of Overseers. This will be followed by a general criticism of the various solutions presented, given before the class by the Professor of Design.

Several of the problems in design each year are given jointly to students in the School of Architecture of Harvard, the students in the Department of Architecture at the Massachusetts Institute of Technology and the students in the Boston Architectural Club. These problems are judged by a joint jury and the drawings from all three institutions are simultaneously exhibited.

With regard to construction, in Option 1 a thorough and broad general knowledge of principles and their application to modern work is insisted upon. The theory and practice of construction is taught as a necessary basis of and in connection with architectural design. The training in construction is such as to prepare the student in the best way for actual office practice.

In Option 2 the engineering subjects are given in the Harvard Engineering School and the architectural subjects in the School of Architecture. The buildings of the two schools are close together. In both schools courses offered to the Option 2 students may be modified where necessary to fit their particular needs.

Besides this opportunity of taking courses in the Harvard Engineering School, any student in the School of Architecture is entitled to all the general privileges of membership in Harvard University. If properly qualified, he has the right of admission to any of the instruction and examinations given in any department of the University, except exercises carried on in special laboratories.

REGULATIONS GOVERNING THE COURSES IN THE SCHOOL OF ARCHITECTURE

Attendance. — Every student is expected to be present during all of the regular hours assigned for each course, including the courses in design and drawing, unless excused by the Council on account of illness, conflict in his schedule, or other valid reason.

Any student who fails in regularity of attendance and faithfulness of work will be reported to the Council and will be warned, and if the irregularity or neglect continues, he will be asked to withdraw from the School.

Drawings. — All drawings and computations made in the School become the property of the School, but will, in some cases, be returned to the students.

Grades. — For work done under the Faculty of Architecture grades are awarded as follows: *A* = distinguished excellence, *B* = excellence, *C* = satisfactory performance. Attention is called to the fact that the Faculty of Architecture has voted that no grade below the grade of “*C*” shall be given in any of the courses in the Graduate Schools of Architecture and Landscape Architecture. This means practically that work which under the regulations of Harvard College would receive a grade of “*D*” is regarded as failure.

By vote of the Council no work will receive credit that is not handed in at the time named, unless on account of illness or other valid excuse to be determined by the Council in each case.

REGULATIONS GOVERNING PROMOTION

Promotions will in each case be made by vote of the Council.

Freehand Drawing and Modelling. — In the freehand drawing and modelling courses promotions will be by vote of the Council on recommendation of the instructor.

Elementary Design. — To be promoted from Architecture 4*a* to Architecture 4*b* a student must ordinarily have passed satisfactorily in work taking one year but the Council reserves the right in special cases to promote students earlier in the course if the work warrants. To be admitted to Architecture 4*b* a regular student must take, or have taken, Architecture 2*b* and 2*c* or otherwise satisfy the Council as to his knowledge of the subjects covered by these courses.

Architecture 4b and Architecture 4c. — To be promoted from Architecture 4*b* to Architecture 4*c* a regular student must fulfil the following requirements: —

1. He must ordinarily have passed in Courses 5*a* and 5*b*.
2. He must have passed creditably in one problem in historic design.

3. He must ordinarily have passed in the courses in the history of architecture.
4. He must have passed in Course 3c.
5. He must in the problems in design have received a total of at least 84 points, of which at least 15 and not more than 24 must have been received in sketch problems.

METHOD OF GRADING PROBLEMS IN ARCHITECTURE 4b AND 4c

In the long problems a grade of $A = 4$ points	} for each week's duration of problems
“ “ “ $B = 3$ “	
“ “ “ $C = 2$ “	

In the sketch problems a grade of $A = 5$ points

“ “ “ $B = 3$ “
“ “ “ $C = 2$ “

NOTE: In the summer courses $A = 6$ points per week; $B = 4\frac{1}{2}$ points and $C = 3$ points per week.

Thesis for the Degree. — To be admitted to undertake the Thesis for the degree of Master in Architecture (Option 1) a student must

- 1, have passed ordinarily in all the courses required for the degree except 5c, 3d², and 3f²,
- 2, have completed with credit a problem in historic design in connection with Course 4c,
- 3, have received in Course 4c at least 75 points, of which at least 15 and not more than 24 must have been received in sketch problems.

Students who hold a Bachelor's degree in Architecture from a recognized architectural school, and who are candidates for the degree of Master in Architecture, shall be required to make sixty-five (65) points in Architecture 4c, of which at least 12 points and not more than 20 points shall be in sketches, and shall complete satisfactorily one historic problem and one construction problem, before being admitted to the Thesis; they shall also satisfy the Council as to their knowledge in architectural history, construction, and freehand drawing.

To be admitted to undertake the Thesis for the degree of Master in Architecture in Architectural Engineering (Option 2) a student must have passed ordinarily in all the courses for this degree.

REQUIREMENTS FOR THE DEGREES

Admission to candidacy for the degree is granted only to men who are graduates of colleges or scientific schools in good standing.

The degrees are granted not on the completion of a curriculum of fixed duration, but on the attainment of a certain standard of work. The length of the period of residence and study will vary with the candidate's previous preparation, and his ability and industry.

(See the "Recommendations as to Preparatory Studies" and "Regulations Governing Promotion" on pages 10 and 14.)

Option 1. The School of Architecture will recommend for the degree of Master in Architecture a student who, having satisfied the Council of the School as to his preparation, has passed with credit in the following courses in the School of Architecture.

- 1a. History of the Ancient and Early Mediaeval Styles.
- 1b ¹hf. History of Gothic Architecture.
- 1c ²hf. History of Renaissance and Modern Architecture.
- 2b ¹hf. Descriptive Geometry.
- 2c ²hf. Shades and Shadows, Stereotomy.
- 3a ¹hf. Perspective.
- 3b. Freehand Drawing (first course).
- 3c ¹. Drawing from Life (first course).
- 3c ². Freehand Drawing (second course).
- 3d ¹. Drawing from Life (second course).
- 3d ². Freehand Drawing (third course).
- 3e ¹. Sketches (first course).
- 3f ¹. Sketches (second course).
- 3e ². Sketches (third course).
- 3f ². Sketches (fourth course).
- 4a. Elementary Architectural Design.—Elements of Architectural Form. The Orders. Elementary problems.
- 4b. Architectural Design (intermediate course). Construction Problem. Historic Problem.
- 4c. Architectural Design (third course). Construction Problem. Historic Problem.
- 5a. Materials and Methods of Building Construction.
- 5b. Theory of Building Construction.

- 5c¹. Theory of Building Construction (second course).
- 6a. Modelling. Practice in modelling architectural ornament in clay (first course).
- 6b¹. Modelling (second course).
- 6c¹. Modelling (third course).
- 8¹. The Mechanical Plant in its relation to the Architectural Problem, heating, ventilation, plumbing, and electrical installations.
- 9¹. Contracts and Specifications. Professional Practice.
- 10². Decorative Design. Decoration Problem.

THESIS.

Option 2. The School of Architecture will recommend for the degree of Master in Architecture in Architectural Engineering a student who, having satisfied the Council of the School as to his preparation, has passed with credit in the following plan of study for the degree.

The following courses in the School of Architecture :

- 1a. History of Ancient and Early Mediaeval Styles.
- 1b^{1hf}. History of Gothic Architecture.
- 1c^{2hf}. History of Renaissance and Modern Architecture.
- 2b^{1hf}. Descriptive Geometry.
- 2c^{2hf}. Shades and Shadows, Stereotomy.
- 3b. Freehand Drawing (first course).
- 4a. Elementary Architectural Design. — Elements of Architectural Form. The Orders. Elementary Problems.
- 4b. Architectural Design (intermediate course). Construction Problem.
- 5a. Materials and Methods of Building Construction.
- 8¹. The Mechanical Plant in its relation to the Architectural Problem, heating, ventilation, plumbing, and electrical installations.
- 9¹. Contracts and Specifications. Professional Practice.

The following course in Harvard College :

Eng. Sci. 8. Power—its Generation, Transmission, and Distribution.

The following courses in the Harvard Engineering School :

- 51. Mechanics — Statics, Kinematics, Kinetics, and Mechanism.
(If not already taken.)
- 56. Applied Mechanics — Resistance of Materials. (Apr.—May.)
- 71. Materials of Engineering. (Feb.—Mar.)
Instruction in Use of Level and Transit.
- 330. Theory of Structures (including foundations).
- 331 ²*hf*. Design of Roofs and Bridges.
- 332. Structures of Metal, Wood, and Masonry, including Indeterminate Structures.
- 340. Reinforced Concrete.
- 341. Concrete and Reinforced Concrete.
- 400 ¹. Water Supply and Sewerage.
Thesis.

CANDIDACY FOR THE AMERICAN INSTITUTE OF ARCHITECTS

The degree of Master in Architecture of Harvard University is accepted by the American Institute of Architects as admitting the holder to candidacy for membership in the Institute without the examination ordinarily required of such candidates. The Option 1 degree is also accepted by the Trustees of the Rotch Travelling Scholarship as exempting candidates for that Scholarship from the preliminary examination and the Option 2 degree is accepted as exempting candidates from part of the preliminary examination subjects.

TRAVELLING FELLOWSHIPS IN ARCHITECTURE

The following scheme for the administration of the Nelson Robinson Jr. Travelling Fellowship in Architecture and the Julia Amory Appleton Fellowship in Architecture has been adopted by the Faculty and authorized by the President and Fellows:—

Nelson Robinson Jr. Travelling Fellowship

The President and Fellows of Harvard College have established from the Nelson Robinson Jr. Memorial Fund the Nelson Robinson Jr. Travelling Fellowship in Architecture, of the annual value of \$1,100.

Julia Amory Appleton Fellowship

The President and Fellows of Harvard College received in 1906 from Mr. Charles F. McKim, of New York, a gift of \$20,000 as the permanent foundation for a travelling fellowship in Architecture, to be called in memory of his wife the Julia Amory Appleton Fellowship in Architecture. The annual value of this fellowship is \$1,100.

General Regulations

These fellowships will ordinarily be offered for competition in alternate years, and the holders will on application be reappointed for a second year when they have done creditable work during the first year. They are open for competition to Masters in Architecture of Harvard University in either option not over thirty years of age at the time of appointment.

Applications should be sent to the Chairman of the School of Architecture before the first day of March of the year in which the candidates expect to present themselves for examination.

The selection among those admitted to candidacy will be made on the results of a competitive examination in the history of architecture and in design, to be held in Cambridge in the spring of each year.

In the history of architecture each candidate will be examined on a special period to be selected by him in advance. Candidates must send notice of their choice of a period to the Chairman of the School of Architecture at least fourteen days before the time set for the examination.

In the examination in design candidates will be required to present themselves at a specified time and place, when a problem will be proposed to them and they will have twelve hours for the preparation of preliminary sketches. These will be retained by the School of Architecture for comparison with the final drawings. During the making of the preliminary sketches candidates will be under the supervision of an instructor of the School. No persons, other than the candidates, and officers of the University, will be permitted in the examination room during an examination. Candidates will be given three weeks in which to prepare the final drawings, and will be required to present with them a written statement that they have been prepared without aid, direct or indirect, from other persons. The facilities of the School will be free to candidates during the time of preparation of the final drawings.

The award will be made on the nomination of the Council of the School of Architecture acting in coöperation with a committee of practising architects invited by the School of Architecture, with the approval of the President of the University, to assist in the award.

The candidate who receives the fellowship will be required to spend at least one year in travel and study in Europe, under the general direction of the Council of the School of Architecture. He will, under certain conditions, have the right of entering and the privilege of working under the direction of the American Academy in Rome. For the present the holders of the Appleton and Robinson Fellowships will be granted the privilege of residence at the Academy, in so far as the accommodations permit, provided they agree to stay during eight months in the year in classical lands under the direction of the Academy.

Every Fellow will be required to submit monthly reports of his progress, and to send at the end of each half-year a measured drawing of some monument of architecture which must be approved by the Council of the School. He will also be required to make, during his stay in Europe, a special study of a single building or group of buildings, and before he receives his final payment must present a written essay, illustrated by drawings, embodying the results of this study.

The first payment of stipend to each Fellow will be 45 per cent on his departure for Europe and the other payments will be by drafts

of $22\frac{1}{2}$ per cent each from the Bursar's Office on March 1 and June 1, provided that the required reports and measured drawings have been received and approved. If the Fellowship is continued for the second year the payments will continue at $22\frac{1}{2}$ per cent each in advance on September 1, December 1, March 1, and June 1. The final payment, being a balance of ten per cent of each year's income, will not be made until all the required work, including the written essay, has been received and approved. No remittance will be made to the holder of a fellowship for any quarter until there is received from him at the Bursar's Office the address to which he desires to have it sent, unless he requests in writing that all remittances be sent to a stated address until he gives notice of a change.

A travelling fellow, from the date at which he accepts his appointment, is expected to have always on file at the office of the Chairman of the School an address by which he can be promptly reached, whether in term-time or vacation.

A Fellow is entitled to receive a letter of appointment, bearing the seal of the University, stating the field of study in which he is to occupy himself, and recommending him, as a distinguished student of the University, to the esteem, confidence, and friendly consideration of all persons to whom he may present the letter.

PRIZE OF ROME

Graduates in Option 1 are eligible to compete for the Prize of Rome of the American Academy in Rome. This prize gives to the successful candidate the privilege of residence in the Academy in Rome and of work in Europe under the direction of the Academy for three years. Intending competitors must be American citizens, graduates of schools of Architecture recognized by the Academy. Applications for further information may be made to the Chairman of the School, or to Mr. C. GRANT LAFARGE, Secretary of the American Academy in Rome, 101 Park Avenue, New York City.

SPECIAL STUDENTS

Special students in Option 1, not candidates for a degree, are admitted to the School by vote of the Council in each case. Candidates for admission as special students must be at least twenty-one years of age, and must ordinarily show that they have worked at least three years as draughtsmen in an architect's office, or have had similar professional training or experience. They must have had a high-school education or its equivalent and must show that they have knowledge of elementary architectural design, freehand drawing, plane geometry, algebra through quadratics, trigonometry and logarithms. Upon arrival at the School they may be required to take examinations in these subjects and in descriptive geometry and shades and shadows and perspective or to do additional work in order that they may be placed in the courses for which they are fitted.

All special students will ordinarily be required to take at least three courses, two of which will be courses in design and construction. In order to be excused from either of these courses special students must satisfy the Council of the School of their proficiency in these subjects.

Candidates for admission as special students may obtain, on application at the office of the Chairman of the School of Architecture, blank forms of application, which should be duly filled and returned to the Chairman. They are advised to apply before August 15th, but applications will be considered at any time of the year. Each such application is considered by itself on its merits, in accordance with the applicant's previous education and experience.

Intending special students living at a distance should correspond with the Chairman in advance and should not present themselves at the University until after they have received notice that they have been admitted to the School.

CERTIFICATE FOR SPECIAL STUDENTS

The University will grant a certificate of accomplishment to Special Students who are recommended by the School of Architecture and who have passed with credit in a course of professional

study ordinarily occupying not less than two years, which shall include work in advanced design, construction, freehand drawing and modelling, and architectural history. .

SCHOLARSHIPS FOR SPECIAL STUDENTS

Harvard University offers three scholarships for special students in the School of Architecture with an income of two hundred dollars each, this being the amount of the tuition fee. Each such scholarship is therefore practically equivalent to free tuition. Appointments are made by the President and Fellows on the recommendation of the Faculty of Architecture.

The scholarships will be awarded to those candidates who, having fulfilled all other conditions, stand highest in a competition in architectural design to be conducted by the University.

At least one of the scholarships will be reserved for a candidate who has not hitherto been a member of the School, provided any such candidate submits in the competition a design of sufficient merit to warrant his receiving a scholarship.

Application of Candidates.—Candidates must apply to Professor C. W. KILLAM, Chairman, School of Architecture, Robinson Hall, Harvard University, Cambridge, Mass., on or before March 1, giving the name of their employer, and must fill out and file with the Chairman a blank form of application not later than Monday, March 21.

Candidates.—Candidates must have had a high-school education or its equivalent; they must have reached the age of twenty-one years before the beginning of the academic year 1921–22; they must have had at least three years' experience as draughtsmen in architects' offices or equivalent training, and must bring the recommendation of their last employer. College graduates are not eligible. Applicants admitted to candidacy will be notified in time to take part in the competition.

Program.—The program for the competitive design will be given out on a date to be fixed each year and at a place in each city to be designated for each candidate by the University.

Preliminary Sketch.—Twelve consecutive hours will be allowed for making a preliminary sketch, a tracing of which should be

retained by the competitor. The original, signed by the candidate and endorsed by the supervisor of the examination, must be mailed on the same day to Professor C. W. KILLAM, Chairman, School of Architecture, Harvard University.

The preliminary sketch must be entirely and in all respects the candidate's own work and must be made without aid of any kind and without reference to books, plates, photographs, or other documents.

The essential features of the sketch are to be adhered to in preparing the final drawings.

Final Drawings. — Competitors will have one week in which to complete the drawings called for by the program. Drawings must be entirely the work of each competitor, made without aid or criticism of any kind; but, in working up the final drawings, competitors may refer freely to books, plates, and photographs.

The final drawings should be addressed to Professor C. W. KILLAM, Chairman, School of Architecture, Robinson Hall, Harvard University, Cambridge, Mass. The drawings of the unsuccessful competitors will be returned.

The drawings must be signed by the competitor and must be accompanied by a written statement signed by him to the effect that they have been made by him alone without assistance of other persons and in entire accord with the provisions of these conditions.

Judgment. — In judging the drawings great weight will be given to the qualities shown in the preliminary sketch as well as in the final drawings. If the final drawings should show marked deviation from the preliminary sketch, they may be thrown out of consideration. Candidates will be at once notified of the award.

PRIZE OF THE BOSTON SOCIETY OF ARCHITECTS

The Boston Society of Architects offers each year two prizes of fifty dollars each, one for the best design submitted by a regular student, and the other for the best design submitted by a special student in the more advanced classes in design in one of the regular problems. For the purposes of this competition the same problem is proposed in both Courses 4b and 4c. The subject of the problem is proposed and the prize is awarded by a committee of the Society.

MEDAL OF THE AMERICAN INSTITUTE
OF ARCHITECTS

On April 13, 1915, the American Institute of Architects, through its President, Mr. R. C. Sturgis, offered to the University for the School of Architecture a student medal to be awarded by the Faculty of Architecture to that student of the School of Architecture about to graduate, or having graduated during the year of the award, who has shown the highest average of excellence in all his studies during the whole of his course in the School. The competition for this medal will be confined to those students in the School having just graduated or about to graduate, who have completed the entire curriculum of the School in either option at Harvard.

DETAILED STATEMENT OF COURSES

HISTORY OF ARCHITECTURE

- 1a. History of the Ancient and Early Mediaeval Styles, with especial reference to Classic Architecture. — Lectures and drawing. Lectures, *Mon., Fri., at 12.* Another hour for conference on drawings, to be arranged with Mr. CONANT. Mr. WALKER and Mr. CONANT.
- 1b ¹/_{hf}. History of the Gothic Styles of Architecture. — Lectures and drawing. *Half-course (first half-year).* Lectures, *Tu., Th., at 12.* Another hour for conference on drawings, to be arranged with Mr. CONANT. Mr. WALKER and Mr. CONANT.
- 1c ²/_{hf}. History of Renaissance and Modern Architecture. — Lectures and drawing. *Half-course (second half-year).* Lectures, *Tu., Th., at 12.* Another hour for conference on drawings, to be arranged with Mr. CONANT. Mr. WALKER and Mr. CONANT.

Except by special permission Courses 1b and 1c are open to those students only who have passed in Architecture 1a.

In these courses the history of architectural development is considered both technically and as an expression of the successive civilizations which produced it. The principles of design which underlie the development of architecture are considered, and the courses include the study of the development both of structure and of ornamental detail and their interrelation. Definite knowledge of the forms that are met with, and their proper use, is insisted upon. The subject is studied by means of lectures illustrated by the stereopticon, and students are required to make drawings and to write reports and theses with illustrative drawings. Students who do not intend to study architecture professionally but who wish to take the courses on the history of architecture as part of a general education, may be allowed to substitute written reports and sketches for the drawings required of students who are preparing for entrance to the School of Architecture. The endeavor is to study the history of architecture not so much archaeologically as to obtain a knowledge of principles of design by an analysis of the growth of architectural form and its

use. Architectural form and composition are thus studied by means of the history of architecture.

Course 1a is chiefly devoted to the history of ancient architecture. The gradual development of architectural forms and the technical processes of building are traced, beginning with a summary study of the buildings of Egypt, Assyria, and Persia, passing on to the more thorough and detailed consideration of the architecture of Greece, Rome, and Byzantium, and the Romanesque styles of Western Europe. Especial emphasis is placed on the acquiring of familiarity with the elements of Classical architectural form, especially the Greek and Roman orders and their uses. The course is not merely historical, but aims to lay the foundation of a working knowledge of architectural form, and thus serves as an introduction to Courses 1b and 1c, which continue the history of architecture, and to the courses in architectural design begun in Course 4a.

Course 1b treats in the same way the architecture of the Gothic period, and Course 1c deals with the architecture of the Renaissance, laying especial emphasis on that of the Italian Renaissance.

Ability to read French and German will be of advantage to those who take Courses 1a, 1b, 1c, but there is no required reading in foreign languages.

Reference-books: In Course 1a, Maspero, *Egyptian Archaeology*; Flinders-Petrie, *Decorative Art in Egypt*; Sturgis and Frothingham, *History of Architecture*; Simpson, *History of Architectural Development*; Perrot and Chipiez, *Art in Ancient Egypt*; *Art in Chaldaea and Assyria*; Pausanias, *Description of Greece*; Choisy, *L'Art de bâtir chez les Romains*; *L'Art de bâtir chez les Byzantins*; Anderson and Spiers, *The Architecture of Greece and Rome*; Gardner, *Athens*; Lanciani, *Ruins and Excavations of Ancient Rome*; Mau, *Pompeii*; Cummings, *History of Architecture in Italy*; Jackson, *Byzantine and Romanesque Architecture*.

In Course 1b — Dehio und v. Bezold, *Kirchliche Baukunst des Abendlandes*; Porter, *Medieval Architecture*; Emerton, *Introduction to the Middle Ages*; Cummings, *History of Architecture in Italy*; Moore, *Development and Character of Gothic Architecture*; Viollet-le-Duc, *Dictionnaire raisonné de l'Architecture française*; Huss, *Rational Building* (translation from Viollet-le-Duc); Adams, *Growth of the French Nation*; Jackson, *Byzantine and Romanesque Architecture*; Fletcher, *History of Architecture*; Kimball and Edgell, *History of Architecture*; Bond, *Gothic Architecture in England*.

In Course 1c — Sismondi, *History of the Italian Republics*; Norton, *Church-Building in the Middle Ages*; Moore, *Character of Renaissance Architecture*; Sturgis and Frothingham, *History of Architecture*; Gromort, *Renaissance en Italie*; Anderson, *Architecture of the Renaissance*

in Italy; Blomfield, *The History of Renaissance Architecture in England*; Ward, *The Architecture of the Renaissance in France*; Martin Briggs, *Baroque Architecture*; Gotch, *Early Renaissance in England*.

General for all three courses, Robinson and Breasted, *Outlines of European History*.

Historic Problems. — Students taking Courses 4b and 4c will be required to take one historic problem in connection with each of the latter courses, the problem to consist of a building or portion of a building in a given historic style, and under the direction of Mr. WALKER.

GRAPHICS

2b¹hf. Descriptive Geometry. — Lectures and drawing. *Half-course (first half-year)*. Tu., Th., 2-5. Mr. FROST.

2c²hf. Stereotomy, Shades and Shadows. — Lectures and drawing. *Half-course (second half-year)*. Tu., Th., 2-5. Mr. FROST.

These courses deal with descriptive geometry and its applications in stereotomy and in the casting of shadows. In shades and shadows, the shadows of most general occurrence are studied; short methods are used for all forms, preference being given to those of most general application.

Reference-books: Pillet, *Traité de Géométrie Descriptive*; McGoodwin, *Architectural Shades and Shadows*.

Courses 2b and 2c are the same as Engineering Science 3b.

3a¹hf. Perspective. — The theory of perspective and its application to the laying out of architectural subjects. — Lectures and practice. *Half-course (first half-year)*. Tu., Th., 9-12. Mr. FROST.

In perspective, the methods of projection from orthographic plan and from perspective plan are both used. The theory of laying out subjects in perspective is studied with reference to the practical work of the architectural draughtsman.

Course 3a is the same as Fine Arts 2f.

FREEHAND DRAWING

3b. Freehand Drawing (first course). Mon., Fri., 9-12. Mr. WARREN.

This is an introductory course, not necessarily presupposing previous work in freehand drawing. It will provide, however, also for those who already have some proficiency. The work in this course consists in drawing from the cast and work in water color from still life.

3c¹. Drawing from the life (first course). *First half-year.* The model will pose *Tu., Th., Fri., 7-10 P.M.* *Six hours a week are required.* Mr. MURPHY.

This course is devoted chiefly to practice in drawing from the nude model, not only to give familiarity with the form of the human figure; so constantly used in architectural decoration, but because of the value of this practice as training for hand and eye.

3c². Freehand Drawing (second course). *Second half-year: Tu., Th., 9-12.* Mr. WARREN.

The course is devoted chiefly to water color studies from objects within the building, and, toward the end of the year, out of doors. The principles of composition in light and shade, as well as in form, are pointed out.

For students who, because of crowded schedules, have been unable to finish the work of 3c² in the previous year, Tuesday mornings will be especially given in the first half-year.

3d¹. Drawing from the life (second course). *First half-year.* The model will pose *Tu., Th., Fri., 7-10 P.M.* *Four hours a week are required.* Mr. MURPHY.

This course is open to those who have passed in Course 3c¹ or who have otherwise satisfied the instructor of their fitness. It continues with more advanced studies the work of the preceding course.

3d². Freehand Drawing (third course). *Second half-year: Mon., Fri., 9-12.* Mr. WARREN.

This course is open to students who have passed in Architecture 3c² or who have otherwise satisfied the instructor of their fitness. It continues the work of the preceding course. It is devoted especially to the continuation of practice in water color. Especial attention will be given to the composition of drawings, which is not only essential to the artistic presentation of architectural subjects, but is of great aid in cultivating the sense of composition in architectural design, which depends upon the same principles.

3e¹. Sketches (first course). *First half-year.* Mr. MURPHY.

3e². Sketches (second course). *Second half-year.* Mr. WARREN.

3f¹. Sketches (third course). *First half-year.* Mr. MURPHY.

3f². Sketches (fourth course). *Second half-year.* M. WARREN.

These courses each require fifteen sketches, to be done outside of the hours given to the other freehand courses. These will be in the main out-of-door subjects. The course $3e^1$ must be passed before admission to $3f^1$, and $3e^2$ must be passed before admission to $3f^2$. It is advisable to do these sketches at the same time of the year as $3c^1$, $3c^2$, $3d^1$, and $3d^2$ respectively, but they may be done during vacations or recesses.

ARCHITECTURAL COMPOSITION

4a. Elementary Architectural Design. — Elements of Architectural Form. — The Orders. — Introductory Problems in Architectural Design. — Practice and criticism. *Mon., Wed., Fri., 2-5, and nine other hours at students' convenience, which may include evenings.* Mr. CONANT, with occasional criticisms by Professor HUMPHREYS.

This course may be entered at the beginning of either half-year.

This course may be offered also in the summer as a partial course.

The purpose of this course is to familiarize the student with the classical elements of architectural form by means of studying and drawing the architectural orders at a large scale and applying the orders and a few of the other elements of buildings to a few simple problems in composition which will also serve to give the student instruction in the technique of architectural drawing and rendering. Individual and general criticism of the student's work will be given regularly and informal conferences and discussions of the orders, and the uses of them in architectural composition, will be given from time to time. Some reading may also be required.

Modifications will be made in this course for Option 2.

Architecture 4a is the same as Fine Arts 10b.

4b. Architectural Design (intermediate course). Study of Elementary Composition. Practice and criticism. *Mon., Tu., Wed., Th., Fri., 2-5.30. Criticisms, three afternoons a week.* Associate Professor HUMPHREYS and Mr. PERRY.

This course may be offered also in the summer as a partial course.

It is open to students who have passed Course 4a with a standard sufficiently high in the opinion of the Council of the School to warrant their continuing their studies in architectural design.

The work of the course consists in the production and presentation of architectural compositions as solutions of stated problems of two kinds: *First*, longer problems of three or more weeks' duration, consisting in the study and development, under the criticism and with the assistance of the

instructors, of the solution of each problem, in general accordance with the student's own idea, as more or less fixed by a preliminary sketch of eight hours' duration, made by the student without assistance or advice. *Second*, shorter problems studied and presented in sketches of twelve hours' duration, without any assistance whatsoever, but followed, as in the case of the longer problems, by a criticism of each design before the whole class.

Informal talks on the theory of architecture and conferences and discussions with the students will be held at intervals and the problems of composition presented by the programs, and existing examples of similar compositions will be studied and analyzed. Certain reading will be required.

Modifications will be made in this course for Option 2.

4c. Architectural Design (advanced course). Architectural Composition. Practice and criticism. *Students will be expected to give at least thirty-five hours each week to the work of the course. Criticisms, three times a week, usually in the afternoon.* Associate Professor HUMPHREYS and Mr. PERRY.

This course may be offered also in the summer as a partial course.

The course is open to students who have completed satisfactorily the required work of Course 4b.

The method of instruction will in general be the same as in the preceding course. It will include the study of the planning of important buildings and groups of buildings. The work of this course must be satisfactorily completed before undertaking the work to be presented as a thesis for the degree of Master in Architecture.

CONSTRUCTION

5a. Materials and Methods of Building Construction. — Lectures and drawing. *Tu., Th., 9-12, and outside reading.* Associate Professor KILLAM.

This course considers fully the materials of construction: stone, brick, concrete, terra cotta, steel, wood, etc., and the methods followed in their use in foundations, walls, steel and wooden framing, finish, etc. Working drawings are considered and some drawing is done by the students. Visits are made to buildings in course of construction and to shops where materials are prepared, to familiarize the student with practical methods. Some attention is given to the effect which the nature of the materials and methods should have on the design, and the best ways of using these materials and methods from a technical point of view.

- 5b. Theory of Building Construction. — Statics, Resistance of Materials, and Elementary Structural Design. *Mon., Wed., 9-12, and two other hours.* Associate Professor KILLAM.

This course is open only to students having a satisfactory knowledge of plane geometry and algebra. A student who has not also had plane trigonometry and logarithms will be required to prepare himself in these subjects during the first half-year. The course is devoted to the study of the theory of building construction, deducing formulas where possible without the calculus, using statics to investigate forces and stresses and studying the strength of the different materials to resist stresses. The principles studied are applied all through the course to practical building design by many problems in wooden, metal, and masonry structures, such as walls, foundations, beams, columns, plate girders, trusses, etc. Problems are worked out in conference between instructor and students.

- 5c¹. Theory of Building Construction (second course). — Masonry Structures, Reinforced Concrete. *First half-year. Fri., 10-12, and five other hours.* Associate Professor KILLAM.

This course is open only to students who have passed satisfactorily in Architecture 5b or otherwise satisfy the instructor of their fitness. The course consists of conferences on the statics of masonry and of problems in masonry, foundations, arches, buttresses, retaining walls, elementary reinforced concrete, etc.

Construction Problems. — Twice each year in connection with Courses 4b and 4c the afternoons of one week will be devoted to the preparation of construction drawings relating to the current problem in design. One set of construction drawings must be satisfactorily completed in connection with each course.

MODELLING

- 6a. Modelling Architectural Ornament in Clay (first course). *Fri. or Sat., 9-12. Three hours a week are required.* Mr. WILSON.

Students in their first year of residence are required to pursue the first course in clay modelling during the whole of the academic year.

- 6b¹. Modelling in Clay (second course). *First half-year. Fri. or Sat., 9-12. Three hours a week are required.* Mr. WILSON.

This course is open to those students only who have passed in Course 6a, or otherwise satisfy the instructor of their fitness.

6c¹. Modelling in Clay (third course). *First half-year. Fri. or Sat., 9-12. Three hours a week are required. Mr. WILSON.*

This course is open to those students only who have passed in Course 6b or otherwise satisfy the instructor of their fitness. Some of the exercises may consist in modelling details of the student's own design.

The object of these courses is to give the student some feeling for the composition of architectural ornament in the round, to give by actual practice an appreciation of the qualities of light and shade, of mass and of surface which may be produced by the work of the carver. It thus supplements in a valuable way the work in the courses in freehand drawing, especially in giving that sense of the third dimension, which is less easily acquired by work in the flat.

MECHANICAL PLANT OF BUILDINGS

[8¹. The Mechanical Plant in its Relation to the Architectural Problem. Heating, Ventilation, Plumbing, and Electrical Installation. *First half-year. Fri. at 9. Mr. LE CLEAR.*]

Omitted in 1920-21; to be given in 1921-22.

To be given in alternate years. This is a course of lectures dealing in the heating, ventilation, plumbing, and electrical installation in modern buildings. It considers fundamental principles and their application in the details of modern work.

PROFESSIONAL PRACTICE

9¹. Contracts and Specifications. — Professional Practice. *First half-year. Mon. at 5. Mr. PARKER.*

Given in alternate years.

This is a course of lectures dealing with forms of contracts and specifications, specification writing, and professional practice.

DECORATIVE COMPOSITION

10². Decorative Composition. — Theory and Practice. *Second half-year. Sat., 9-1. Associate Professor HUMPHREYS.*

This is a course of lectures with practice in decorative design, and of design in the handicrafts. It will ordinarily be taken by students at the same time as Course 4b.

Decoration Problem. — At the end of Course 10² one week will be devoted to a problem, occupying, during this period, the hours of Course 4b.

THESIS

Each candidate for the degree of Master in Architecture will propose to the Council of the School a subject for a design to be submitted as a thesis for the degree. The programme must be approved by the Council before work on the thesis is begun. The design will be for a building of moderate size, but of some architectural importance, and will be fully presented in plans, elevations, sections and detail drawings with calculations and indications of the construction, and indications of ventilating, heating, and plumbing. In Option 2 the emphasis will be placed upon the engineering features of the design. Associate Professor HUMPHREYS or Mr. PERRY and Associate Professor KILLAM. In Option 2 the professors in the Engineering School will assist.

COURSE OF ADVANCED SPECIAL STUDY

20a. Competent Graduate Students and others who satisfy the instructor of their fitness to pursue advanced work will be directed in the study of special periods in the history of architecture. Reports and theses, illustrated by tracings and drawings. Mr. WALKER.

For courses of advanced study in engineering see the pamphlet of the Harvard Engineering School.

SUMMER COURSES IN ARCHITECTURE

The following courses in Architecture may be offered during the summer of 1920: —

- S4a. Elements of Architectural Form. — The Orders. Elementary Architectural Design. Problems, conferences, and criticism. *Daily, 9-5; Saturdays, 9-1.* Associate Professor HUMPHREYS.
- S4b. Architectural Design (intermediate course). — Problems, conferences, and criticism. *Daily, 9-5; Saturdays, 9-1.* Associate Professor HUMPHREYS.
- S4c. Architectural Design (advanced course). — Problems, conferences, and criticism. *Daily, 9-5; Saturdays, 9-1.* Associate Professor HUMPHREYS.

These courses will not be given unless the total registration is five or more. To determine whether they will be offered, students are required to register at Robinson Hall before June 16. Only one of the courses may be taken by any one student in a single summer. They are open to men only.

Students in the School of Architecture may shorten the period of residence and study, which otherwise would be required for the degree in Architecture, by taking one or more of these courses.

Architecture S4a is an introductory course on the orders, the elements of architectural form and elementary architectural design. It is identical as far as it goes with Architecture 4a given during term time, *but does not completely cover this ground and counts for one course instead of for two*. It may be taken by students proposing to enter the School of Architecture who wish in part to anticipate Architecture 4a. Students who have already done some elementary work in architecture may be enabled by this summer course to anticipate entirely the work of 4a. Those who fail during the summer to complete entirely the work of the regular course will be given credit for their work as far as it goes. Students in Harvard College who have taken Architecture 4a in the regular term, but have not entirely completed the requirements of this course, may take the summer course S4a as supplementary to the work already done and thus complete the requirements of the course. By taking this summer course students proposing to enter the School of Architecture of Harvard University may be able to shorten the time required to win the degree.

Architecture S4b is a course supplementary to the parallel course given during the regular term. The problems given are identical in character to those given in Architecture 4b of the regular term, and students in the School of Architecture will receive the same credit for each problem done in the summer courses as for those done during the regular term of the School.

Architecture S4c is a course in advanced design.

There will be two criticisms each week at the desks and a general criticism before the class at the conclusion of each problem.

The course will be open to any students who can show to the satisfaction of the instructor their ability to profit by the work. The course is especially intended for architects or draughtsmen desirous of advanced practice in design, graduates of architectural schools, or students who have been admitted to the final year in any architectural school of recognized standing. For students registered in the School of Architecture as regular students the problems in this summer course will be counted as equivalent to problems in Course 4c of the regular term.

Students who carry their work on the thesis for the degree into the period of the Summer School should register in this course and will then receive criticism.

The drawing room will be open daily during the continuance of the summer courses from 9 A.M. to 6 P.M., and the library will be accessible for reference from 9 A.M. to 5 P.M., except on Saturdays when it closes at 1 P.M.

Opportunity for practice in freehand drawing will be given in connection with the summer courses in design.

The summer courses in Architecture in 1920 begin on Tuesday, July 6, and last until Saturday, August 14, a period of six weeks. The fee for each course is \$35 — with a registration fee of \$5 in the case of those members of the course who are not registered in the University. Any one wishing to shorten the period of the summer course may do so by omitting one or more problems. There will, however, be no reduction of fee.

Men not registered in the School of Architecture will be admitted to the Summer School who can show that they are prepared to do the required work. Such students must register at Robinson Hall before June 16. Enquiries should be sent to Professor C. W. KILLAM, Chairman, School of Architecture, Harvard University, Cambridge, Mass.

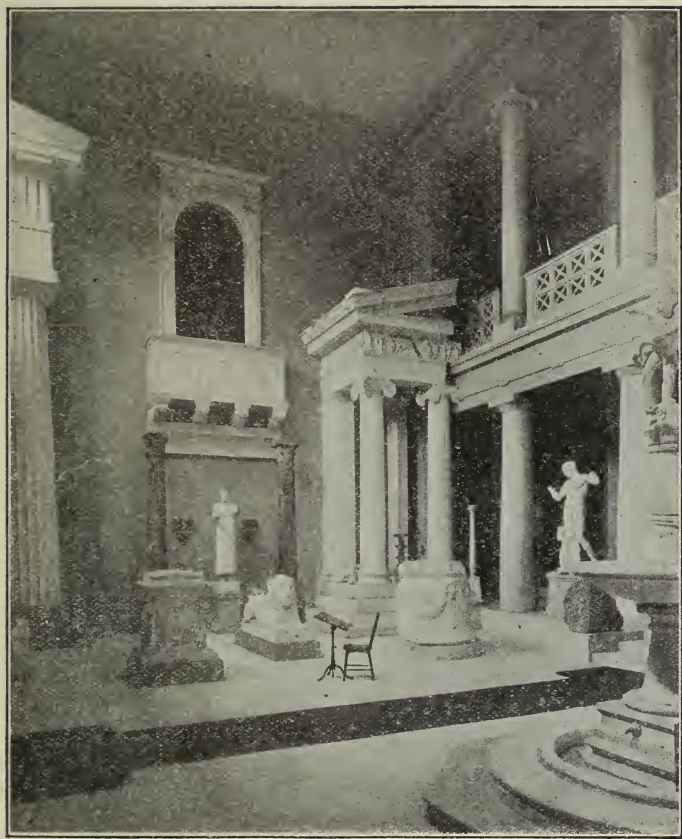
BUILDING AND EQUIPMENT

NELSON ROBINSON JR. HALL

The Schools of Architecture and Landscape Architecture occupy the building devoted to their use, provided by the gift of Mr. and Mrs. Nelson Robinson of New York in memory of their son, Nelson Robinson, Jr., of the Class of 1900, and known as Nelson Robinson Jr. Hall.

The building contains on the ground floor the following rooms: —

A Hall of Casts, which runs through two stories, and in which are set up full-size casts of important pieces of architecture. These include the order of the Temple of Theseus and of one corner of the Temple of Niké Apteros at Athens, the orders of the Mausoleum at Halikarnassus, and of the Temple of Vesta at Tivoli, the entablature of the Temple of Concord in Rome, a large part of



HALL OF CASTS
NELSON ROBINSON JR. HALL

the arch of Trajan at Beneventum, several important Roman and Renaissance doorways (including that of the Temple of Hercules at Cori), the balcony and window of the Cancelleria palace in Rome, the fountain by Verrocchio from the courtyard of the Palazzo Vecchio in Florence, the altar found at Ostia, besides statues, vases, cornices, and other smaller objects. The collections include also a remarkably fine series of casts from Greek architectural detail, made in Athens for the School, including several casts from objects never hitherto reproduced; and a most interesting series of original fragments, chiefly marble, of Greek, Roman, and Italian Renaissance detail.

A lecture room, 50 × 30 feet [provided with two electric stereopticons in a gallery].

A smaller lecture-room surrounded with blackboards.

Two drawing rooms occupied by the School of Landscape Architecture. The library of the School of Landscape Architecture.

On the walls of the lower corridor hang two large paintings, by Mr. Joseph Lindon Smith, of the Temple of Abou Simbel in Nubia, the gift of Mrs. David P. Kimball of Boston, and of the interior of the temple at Philae, the gift of Mr. A. C. Hemenway.

On the second floor is the main drawing room, 110 × 30 feet, on the walls of which are other important casts and drawings. From one end of this room opens the principal freehand drawing room, containing a collection of smaller casts and drawings. The collection of drawings is especially valuable, and includes, besides more modern works, original drawings of architectural subjects by such masters as J. M. W. Turner, J. S. Cotman, Samuel Prout, J. D. Harding, and David Cox. From this room opens a second architectural draughting room, and at the opposite end of the corridor is the architectural library.

In the corridor are placed cases containing a small collection of pottery and bronze-ware lent by Dr. Denman W. Ross as examples of design and color.

The basement contains a students' common-room, rooms for clay modelling, exhibition of samples of building materials, unpacking and mounting, store-rooms, toilet-room, etc.

In addition to the collections of the School of Architecture, those of the Fogg Art Museum of the University (see p. 41), con-



CORRIDOR, SECOND FLOOR
NELSON ROBINSON JR. HALL

sisting of casts, photographs, lantern slides, diagrams, and drawings, and the casts and photographs of German work in the Germanic Museum, and of Assyrian, Persian, and Roman work in the Semitic Museum, are available and are always open to students.

The University Library contains a very complete collection of books on the Fine Arts (including Architecture) numbering over 13,000 volumes.

LIBRARIES OF ARCHITECTURE AND LANDSCAPE ARCHITECTURE

The libraries of the Schools of Architecture and Landscape Architecture occupy two rooms each about 30×40 feet; one of these on the second floor is devoted to architecture, that on the ground floor to landscape architecture.

The library of the School of Architecture is open every week-day during term time from 9 A.M. to 5 P.M., except on Saturdays, when it closes at 1 o'clock. It is occasionally open also in the evening. It is intended essentially as a reference library, and contains, besides a collection of over 19,000 photographs, all the works referred to in the courses on architecture; but most of the books have been chosen with regard to the work of the drawing room, and especially to facilitate the practical work in design. The plates of many of the volumes have been taken from their bindings and mounted on separate cards like photographs, and are conveniently catalogued and arranged in cases. The library now contains 2,565 bound volumes, including portfolios containing mounted plates, and 9,585 lantern slides.

The library of the School of Landscape Architecture, to which students in architecture also have free access, contains much material bearing directly on architecture, besides the books, photographs, etc., which relate to the subject of landscape architecture specifically.

THE WILLIAM HAYES FOGG ART MUSEUM

EDWARD WALDO FORBES, A.B., *Director*.PAUL JOSEPH SACHS, A.B., *Assistant Director*.

The WILLIAM HAYES FOGG ART MUSEUM was founded by Mrs. ELIZABETH FOGG of New York in memory of her husband whose name it bears.

In the main exhibition hall are gathered several original works of ancient sculpture, among which may be noted: a marble statue of Meleager, which is perhaps the best existing ancient copy of a lost statue by the famous fourth century sculptor, Scopas; an Aphrodite; a Narcissus, a well-known idealized head of a woman, formerly in the Ponsonby Collection; two other marble heads; and several Greek and Graeco-Roman reliefs, including one from Palmyra. Here are also a collection of moulds and fragments of Arretine pottery, a collection of Greek vases and reproductions of Mycenaean art, a classified collection of electrotype reproductions of Mycenaean art, and a collection of electrotype reproductions of French and Italian medals of the Renaissance. Around the top of the walls of this hall are casts of a large portion of the frieze of the Parthenon.

In the southeast room is a collection of reproductions of Cretan works of art of the early, middle, and late Minoan periods. Next to it is a room occupied principally by Oriental works of art, but which also contains an unfinished historical picture by Copley and some Italian and German pictures. In it may be seen a rare series of Gandhara sculptures showing the work of the early Buddhist sculptors. There are besides examples of Japanese painting and Chinese pottery.

In the northwest room is a collection of valuable Chinese and Japanese works of art including pottery, jade, bronze, textiles and examples of Persian painting and calligraphy from the fourteenth to the seventeenth centuries, from the collection of Henry E. Wetzel. In the adjoining room is a collection of framed textiles. The southwest room contains some American paintings, including a number of water colors by Dodge Macknight, and examples of the work of Winslow Homer, Sargent, La Farge, and Bierstadt.

In the corridor, around the large semi-circular lecture room, Dr. Denman W. Ross has arranged an exhibition to illustrate the History and Theory of Design and Representation.

On the walls of the corridor of the upper floor are some fine Japanese prints and Chinese, Japanese, and Thibetan paintings.

In the large upper gallery there is a collection of about fifty Italian, Flemish, and German paintings of the fourteenth, fifteenth, and sixteenth centuries and a small number of water-color drawings by artists of the early English school, including works by Turner, Hunt, and Ruskin. There is also a small collection of important original drawings. Italian Renaissance sculpture is represented by a marble relief of a kneeling angel.

The collection of photographs numbers over 46,000. It affords a wide range of illustrations of the Fine Arts of all epochs and all countries, including architecture, sculpture, and painting. There are also many photographs of value in the study of archaeology and the minor arts. They are always accessible to members of the University and other persons on application to the assistants in charge. In addition there are over 12,000 slides.

In the larger east room on this floor, and in a part of the large gallery, are deposited the Gray and the Randall collections of engravings, which together include about 30,000 prints. The Gray Collection is rich in prints from the works of the great German and Italian wood and metal engravers and etchers; and contains many specimens of later forms of engraving, including numerous examples of modern work.

The Randall Collection, gathered by John Witt Randall to illustrate the history of the art of engraving, contains some very important prints.

Access to the prints may always be had, under suitable regulations, on application to the Director or his assistants.

The Museum is open on week-days from 9 until 5 and on Sundays from 1 until 5.

GERMANIC MUSEUM

The Germanic Museum was established in 1902, as the result of collections undertaken by the Visiting Board of the Germanic Department and by the Germanic Museum Association. The museum occupies the new building, provided by the munificence of the late Adolphus Busch, and known as Adolphus Busch Hall. Its object is

to illustrate by means of plaster casts and other kinds of reproduction the outward aspect of the development of Germanic civilization.

The bulk of the collection is devoted to German architecture and sculpture of the Middle Ages and the Renaissance.

MUSEUMS IN BOSTON

The many museums in Boston are easily accessible from Cambridge. Especially important to students of architecture are the Boston Museum of Fine Arts and the Boston Public Library. Both of these institutions are open free to students of Harvard University.

BOSTON MUSEUM OF FINE ARTS

The Boston Museum of Fine Arts, one of the largest fine art museums of the country, is situated on Huntington Avenue. It contains collections of painting, sculpture and architecture, and the minor arts, besides a collection of casts of sculpture and architecture. From time to time special exhibitions are held and lectures are given on fine arts subjects, which are open to students of Harvard University.

BOSTON PUBLIC LIBRARY

The Boston Public Library is important to the School of Architecture, not only on account of its large collection of books on architecture and the other fine arts, but also on account of its collection of photographs and its occasional exhibitions. Free lectures on architecture and other fine arts subjects are given from time to time.

PAST HOLDERS OF TRAVELLING FELLOWSHIPS IN ARCHITECTURE

AUSTIN FELLOWSHIPS IN ARCHITECTURE

1901-02 Edward Thomas Patrick Graham, s.b. in Architecture 1900.

1902-03 Edward Brown Lee, s.b. in Architecture 1899.

NELSON ROBINSON JR. FELLOWSHIP AND JULIA AMORY APPLETON FELLOWSHIP

(Offered in alternate years)

1903-04 Leroy Pearl Burnham, s.b. in Architecture 1902, s.m. in Architecture 1903 (Robinson Fellow).

- 1904-05 Leroy Pearl Burnham, s.B. in Architecture 1902, s.M. in Architecture 1903 (Appleton Fellow).
- 1904-05 Charles Robert Wait, s.B. in Architecture 1903, s.M. in Architecture 1904 (Robinson Fellow).
- 1905-06 Harry Edward Warren, s.B. in Architecture 1904, s.M. in Architecture 1905 (Appleton Fellow).
- 1906-07 Alexander Edward Hoyle, A.B. 1902, A.M. 1903, s.B. in Architecture 1904 (Robinson Fellow).
- 1907-08 Ralph Wesley Varney, s.B. in Architecture 1904, s.M. in Architecture 1905 (Appleton Fellow).
- 1908-09 Walter Grant Thomas, s.B. in Architecture 1907 (Robinson Fellow).
- 1909-10 Appleton Fellowship not awarded.
- 1910-11 Maurice Feather, s.B. in Architecture 1907, s.M. in Architecture 1908 (Robinson Fellow).
- 1910-11 Channing Williams Porter, A.B. 1906, s.B. in Architecture 1907 (Appleton Fellow).
- 1911-12 Merton Maughs Mann, s.B. (*Univ. of Chicago*) 1902, A.B. (*Harvard Univ.*) 1903, M.Arch. (*ibid.*) 1909 (Appleton Fellow).
- 1912-13 Rhodes Robertson, A.B. 1907, M.Arch. 1910 (Robinson Fellow).
- 1913-14 Appleton Fellowship not awarded.
- 1914.† Laurence Eldred Mowery, A.B. (*Carleton Coll., Minn.*) 1907, M.Arch. 1914 (Robinson Fellow).
- 1914-15 James Hutchinson Forsythe, s.B. (*Univ. of Pennsylvania*) 1908, M.Arch. 1913 (Appleton Fellow).
- 1915.* Lloyd Melville Hendrick, Jr., A.B. 1912, M.Arch. 1915 (Appleton Fellow).
- 1916.‡ Jean Vernon Wilson, A.B. (*Carnegie Institute of Technology*) 1913, M.Arch. (*Harvard Univ.*) 1916 (Robinson Fellow).
- 1917.‡ Philetus Clarke Knowlton, Jr., s.B. in Arch. (*Univ. of Illinois*) 1914, M.Arch. (*Harvard Univ.*) 1917 (Appleton Fellow).
1918. Robinson Fellowship not offered.
1919. Appleton Fellowship not offered.
1920. John Llewellyn Skinner, B.A.Sc. (*Univ. of Toronto*) 1916 (Robinson Fellow).

* Fellowship held in abeyance on account of the war.

† In Europe, 1916-17, and part of 1917-18.

‡ Went to Europe, 1919.

LIST OF STUDENTS IN THE SCHOOL OF ARCHITECTURE
1919-20

REGULAR STUDENTS

Ames, John Worthington, Jr., A.B. 1918 (1919). I yr.	Cambridge, Mass.
Brazer, Norman, S.B. 1918 (1919). I yr.	Brookline, Mass.
Carey, Arthur Graham, A.B. 1914. II yr.	Cambridge, Mass.
Carlson, John Edwin, A.B. 1919 (1920). I yr.	Newton Centre, Mass.
Cowles, Knight Cheney, A.B. (<i>Yale Univ.</i>) 1916. I yr.	Chicago, Ill.
Dudley, Lyman Otis, A.B. 1918 (1919). I yr.	Brooklyn, N.Y.
Hindenach, Warren Lower, S.B. IN ARCH. (<i>Univ. of Pennsylvania</i>) 1918. I yr.	Fort Washington, Pa.
Jenkins, Ralph Brewerton, A.B. 1919 (1920). I yr.	Washington, D.C.
Johnson, Ellsworth Egbert, A.B. 1917 (1918). III yr.	Boisé, Idaho.
Kingsbury, Frederick Stillman, S.B. 1914. IV yr.	Needham, Mass.
Knight, Henry Coke, A.B. (<i>Univ. of Texas</i>) 1917. I yr.	Dallas, Tex.
La Farge, Christopher, A.B. 1920. I yr.	New York, N.Y.
O'Toole, William George, B.S. (<i>Univ. of Louisville</i>) 1918. II yr.	Louisville, Ky.
Rosenfield, Isadore, S.B. 1918. II yr.	Boston, Mass.
Russell, William Hamilton, S.B. 1918 (1919). I yr.	Jamaica Plain, Mass.
Skinner, John Llewellyn, B.A.SC. (<i>Univ. of Toronto</i>) 1916. I yr.	Detroit, Mich.
Stowell, Kenneth Kingsley, S.B. (<i>Dartmouth Coll.</i>) 1916. II yr.	New York, N.Y.
Sutherland, Roger Andrew, A.B. (<i>Ripon Coll.</i>) 1919. I yr.	Fond du Lac, Wis.
Talbot, Andrew Burton, A.B. 1918 (1920). I yr.	Providence, R.I.
Warren, Langford, A.B. 1919. I yr.	Cambridge, Mass.
Welch, Stuart Cary, A.B. 1917. I yr.	Buffalo, N.Y.
Wilder, Frederick Jonas, A.B. 1919. I yr.	Woodstock, Vt.
Williams, Wheeler, PH.B. (<i>Yale Univ.</i>) 1918 (1919). I yr.	Chicago, Ill.

SPECIAL STUDENTS

Axt, George Francis. I yr.	Woodcliff, N.J.
Office of N.Y. Telephone Co., New York.	
Eames, Edward Alonzo. II yr.	San Francisco, Cal.
Office of Ward & Blohme, San Francisco, Cal.	
Jesson, William Alexander. I yr.	Bucyrus, O.
Office of Smith, Hinchman and Grylls, Detroit, Mich.	
Kussin, William Frederic. II yr.	Elmhurst, N.Y.
Office of Ford, Butler & Oliver, New York.	
Manning, Edgar James. I yr.	Chicago, Ill.
Office of M. J. Sturm, Chicago, Ill.	
Owen, Frank Sewall. I yr.	Brighton, Mass.
Office of E. W. Campbell, Boston, Mass.	
Pratt, Walter Henry. III yr.	Natick, Mass.
Town of Natick.	
Seward, Benjamin Edward. I yr.	Allston, Mass.
Own practice.	
Shimura, Tashichi. I yr.	Yokohama, Japan
Office of Clinton & Russell, New York.	
Stoeckel, Edgar Frederick. I yr.	Brooklyn, N.Y.
Office of Trowbridge & Livingston, New York.	
Stokes, Allen Frederick. II yr.	Brooklyn, N.Y.
Office of Dennison & Hiron, New York.	
Voegeli, Henry Edward. I yr.	Cheshire, Conn.
Office of American Brass Co., Waterbury, Conn.	

FACULTY OF ARCHITECTURE

THE FACULTY OF ARCHITECTURE was instituted as a separate Faculty by vote of the Corporation and Overseers in 1914. It has charge of the School of Architecture and of the School of Landscape Architecture.

The professional course in Architecture was established as one of the programs of study of the Lawrence Scientific School in 1894, and professional courses in Landscape Architecture were first given in connection with the Department of Architecture in 1900. The Schools of Architecture and Landscape Architecture are now organized independently under their own Faculty. The Faculty of Architecture has control of the requirements for admission to the two schools in its charge, of courses of instruction, of regulations concerning the choice of studies and of nomination for fellowships and scholarships, and makes recommendation to the Corporation for the degrees of Master in Architecture, Master in Architecture in Architectural Engineering, and Master in Landscape Architecture.

FACULTY OF ARCHITECTURE

ABBOTT LAWRENCE LOWELL, LL.B., LL.D., Ph.D., *President.*

CHARLES WILSON KILLAM, *Acting Dean; Associate Professor of Architectural Construction, and Chairman of the School of Architecture.*

JAMES STURGIS PRAY, A.B., *Charles Eliot Professor of Landscape Architecture, and Chairman of the School of Landscape Architecture.*

JOHN SANFORD HUMPHREYS, *Associate Professor of Architectural Design.*

HENRY VINCENT HUBBARD, A.M., S.B., *Assistant Professor of Landscape Architecture, and Secretary of the Faculty.*

HAROLD BROADFIELD WARREN, *Instructor in Freehand Drawing.*

HERMANN DUDLEY MURPHY, *Instructor in Freehand Drawing.*

HENRY ATHERTON FROST, A.B., M.ARCH., *Instructor in Architecture.*

ADMISSION

Membership in the School of Architecture or in the School of Landscape Architecture as *regular students* is open to men who are graduates of a college or scientific school in good standing. Such men are admitted without examination on presentation of evidence of their graduation.

Other men of suitable age and attainments may also be admitted as *special students* by special vote in each case, but such admission does not carry with it admission to candidacy for a degree. Special students must have had a high-school training or its equivalent, must be over twenty-one years of age and must have had at least three years of professional training and experience or otherwise satisfy the Council of the School they wish to enter as to their preparation.

The plans of study in each School presuppose certain preparation. This preparation is generally such as can be obtained in any well equipped college or scientific school. A student who lacks the necessary knowledge of any of the preparatory subjects may complete his preparation by taking the appropriate courses after entrance, or in some cases may complete such preparation by work in the Summer School.

Inquiries in regard to the School of Architecture may be addressed to Professor C. W. KILLAM, Chairman, Robinson Hall, Cambridge, Mass., or, in regard to the School of Landscape Architecture, to Professor J. S. PRAY, Chairman, 50 Garden Street, Cambridge, Mass.

REGISTRATION

Students entering the School of Architecture or of Landscape Architecture will register in Robinson Hall on Monday of the opening week of the academic year, the Monday preceeding the last Wednesday in September.

On the day of registration, each student should submit his list of studies for approval to the Chairman of the School under which he proposes to work.

OBLIGATIONS OF STUDENTS

All students, special students as well as regular students, are subject to all the regulations of the School in which they are registered.

Continuous residence at the University during term-time and complete fulfilment of all School duties is expected of all students.

A student who fails faithfully to observe this regulation, or whose action is otherwise prejudicial to the discipline of the School, is liable to have his connection with the School terminated by vote of the Council of the School.

Students whose work at any time is unsatisfactory will be notified, and, if no improvement is shown, they will be requested to leave the School.

TUITION FEES *

For the academic year, the period between the opening of the College year and Commencement Week, the annual tuition fee for every student doing full work is *two hundred dollars*. Additional Course fees are not charged to students in the Graduate Schools.

A student paying the full fee is entitled to all the general privileges of membership in the University. He has the right to take any courses for which he is qualified, given under the authority of the Faculty of Arts and Sciences. He has also the right of admission, provided he is properly qualified, to any of the instruction and the examinations given in any department of the University; except exercises carried on in special laboratories. To obtain admission to instruction given in a department other than that in which he is registered, a student should apply to the Chairman of the School for a certificate to be presented to the Dean of the department in which the desired instruction is given.

A student who enters the University after the beginning of the academic year is charged from the beginning of the tuition period in which he enters. One who leaves during the year is charged to the end of the tuition period in which he leaves, provided before that

* These rules govern students who registered in the School for the first time in the academic year 1916-17 or thereafter. Students who in 1915-16 or prior thereto were registered in the School whose work therein was uncompleted at the end of 1915-16, may complete the work upon which they were engaged during the period of their last registration at the rates and under the rules printed in the Catalogue for 1915-16.

time he gives the Chairman notice in writing of his withdrawal; otherwise he is charged to the end of the academic year or to the end of the tuition period in which such notice is given. The first tuition period begins at the beginning of the academic year and ends November 25; the second begins November 26 and ends at the end of the first half-year; the third begins with the second half-year and ends with the spring recess; and the fourth begins at the close of the spring recess and ends at Commencement. The second half-year in the School of Architecture begins on February 7.

Deduction from the full tuition fee of two hundred dollars a year is made for properly notified absence, as follows: for absence for three consecutive months, *fifty dollars*; for absence during an entire half-year, including examinations, *one hundred dollars*. A student who claims a deduction, on the ground of absence, must present at the Bursar's office a certificate from the Chairman as to the fact and duration of his absence; and, in order to obtain such a certificate, he must have given previous notice of his intended absence to the Chairman.

Every candidate for a degree who has not paid as a member of the School tuition fees amounting in all to at least the full fee for one academic year is charged a graduation fee of twenty dollars: and he is absolutely liable for payment of this fee unless he fails in his examinations, or notifies the Chairman in writing before June 1 (or, in case of a degree to be given in the middle of the year, before the first day of the second half-year) that he withdraws his candidacy.

FEES FOR SINGLE COURSES

Students (not doing full work) may pay fees for the courses which they take, instead of paying the full tuition fee of a student in regular standing. But a student paying less than two hundred dollars is not allowed to be the holder of a fellowship (except an Austin Teaching Fellowship) or scholarship, or to count the year as a full year of study for a degree, or to claim admission to instruction or examination in another department of the University.

No deduction for absence or withdrawal is made from the fees for single courses. A student who attends a Course of Instruction for only a part of the year must pay the whole fee for such course. But a student who is liable for the full tuition fee of *two hundred*

dollars a year is entitled to the same remission as a student in regular standing.

The fees for single courses are as follows : —

For any Course of Instruction not a Laboratory Course or Course of Research, *fifty dollars* for a full course, *twenty-five dollars* for a half-course.

For a Course of Research, a sum computed at the rate of fifty dollars for a full course and twenty-five dollars for a half-course for as many courses or half-courses as represent the amount of time devoted to the subject by the student. In estimating this time it shall be assumed that all of the student's working time not devoted to other specified and accepted courses or occupations is given to this course.

In all other cases the fee is computed at the rate of *seventeen dollars for an hour a week* of instruction during the academic year, up to two hundred dollars.

In no case shall the tuition fee for the year be less than *twenty-five dollars*.

PAYMENTS BY THE MONTH

Students in the Schools of Architecture and of Landscape Architecture, entering after the opening of the school year and without intention of remaining until Commencement, may pay by the month, if specifically arranged on entrance. The tuition fee in this case is twenty-three dollars a month or fraction thereof. To obtain this privilege students must have the approval of the Council of the School by vote in each case and must renew their registration at the beginning of each month. Such work must be continuous unless exception is made by vote of the Council.

A student working on his graduating thesis will be charged on the basis of full-time work for the period during which he is occupied on the thesis, whether during the regular term or during the Summer School ; but such a student may pay by the month.

STILLMAN INFIRMARY .

Every student paying the full tuition fee of two hundred dollars a year is entitled, in case of sickness and on the order of a physician, to a bed in a ward, board, and ordinary nursing at the Infirmary for

not exceeding two weeks in any one academic year. Charges are made for time in excess of two weeks, as well as for private rooms and for special nursing; and the patient pays his physician.

Students paying less than the full tuition fee of two hundred dollars are charged for full time if they use the Infirmary unless before October 1 they have paid to the Bursar a special fee of four dollars; in which event they are given the privileges of those who pay full tuition.

BONDS

Every student in the Graduate Schools in regular standing must file with the Bursar a bond in the sum of *two hundred dollars*, signed by two bondsmen, one of whom must be a citizen of the United States, or by a surety company duly qualified to do business in Massachusetts, as security for the payment of College bills; or he may deposit with the Bursar two hundred dollars in United States bonds for the same purpose; or he may deposit fifty dollars as security and pay in advance all sums for which he becomes liable to the University. Money deposited as security is returnable after the issue of the second term-bill, one week before Commencement.

Every student in any department of the University who occupies a College room or boards at the Union, the Freshman Halls, Memorial Hall, or the Cafeteria must file a bond for *four hundred dollars*, or must in advance, and in addition to his tuition fees, pay the full year's rent of his room, and make a deposit as security for the payment of his board. In the case of the Union, Memorial Hall, or the Freshman Halls, the deposit for board may be made each week at the rate of \$10, or it may be made less frequently in multiples of that figure. In the case of the Cafeteria, the deposit, made in sums of \$5 or multiples thereof, must be such as to maintain constantly in the Bursar's hands a balance in excess of \$10.

No officer or student of the University is accepted as a bondsman.

PAYMENT OF THE TUITION FEE — TERM-BILLS

All students are required to pay the tuition fee in advance. Students doing full work are required to pay fifty dollars on or before the opening day of the academic year, fifty dollars on or before November 26, fifty dollars on or before February 10, and, in case

their full fee is two hundred dollars, a fourth instalment of fifty dollars on or before the Monday following the April recess.

Students doing less than full work, and paying at the course rate, are required to pay in the same manner as those who are doing full work, until all their work has been paid for.

A student who is doing less than full work is required to present at the Bursar's office, at the beginning of the academic year, a certificate from the Chairman of his School, stating the courses that he is taking; and he is not permitted to attend courses that are not included in the certificate.

No bills are sent specifically for the tuition fee; although the third instalment is incorporated for convenience with the first term-bill, since they fall due on the same day.

The first term-bill is issued January 20, and must be paid on or before February 10. This bill includes, in addition to the third instalment of the tuition fee, such charges as the following: Two-thirds of the year's charges for the use of a College room; fees for laboratory courses which begin in the first half-year; locker fees; such incidental charges as can then be determined; charges for gas and electricity, and for board at the Dining Halls, made up to as late a date as practicable.

The second term-bill is issued one week before Commencement, and contains the tuition fees for Additional Courses, if any, and other charges not included in the first bill. The second term-bill must be paid by all candidates for degrees at least one day before Commencement; and, by all other students, on or before July 20.

Students who are candidates for degrees in the middle of the academic year must pay all dues to the University at least one day before the day upon which the degrees are to be voted.

The term-bills are sent to the student at his Catalogue address unless the Bursar is requested in writing to send them elsewhere.

When a student's connection with the University is severed, all charges against him must be paid at once.

Each student whose dues to the University remain unpaid on the day fixed for their payment is required at once to cease attending lectures or recitations, using the libraries, laboratories, gymnasium, athletic grounds or buildings, boarding at any of the University dining halls, and making use of any other privileges as a student,

until his financial relations with the University have been arranged satisfactorily to the Bursar. A student in Harvard College who neither pays his dues nor makes arrangement with the Bursar for their postponement within three days after the date fixed for their payment, and who thereby loses his privileges but is shortly readmitted thereto, is required to pay a fee of ten dollars before resuming his standing in the University.

GENERAL ESTIMATE OF EXPENSES FOR STUDENTS

The necessary expenses of tuition and residence include tuition (\$200), room (\$50 to \$200), board (\$240 to \$350). To help students in reducing their expenses, a number of coöperative institutions are established in connection with the University, such as dining-halls, the Loan Furniture Association, the Text-book Loan Library, the Harvard Coöperative Society, etc.

Besides expenses for tuition, room and board, furniture, fuel and light, there may be also laboratory fees, charges for books and stationery, clothing, washing, membership of societies, subscriptions, service, and the expenses of the long vacation; some of which are luxuries, and all of which vary with the means and habits of the individual student.

Information regarding opportunities for students to earn part or all of their expenses may be obtained on application to the Secretary for Student Employment, 9 University Hall, Cambridge, and regarding such opportunities in connection with professional work to the Chairman of the School in which the student is registered.

For further information see the pamphlet entitled "Students' Expenses,"

FELLOWSHIPS AND SCHOLARSHIPS

FELLOWSHIPS

THE NELSON ROBINSON JR. TRAVELLING FELLOWSHIP IN
ARCHITECTURETHE JULIA AMORY APPLETON TRAVELLING FELLOWSHIP IN
ARCHITECTURE

For detailed statement as to these Fellowships see the Announcement of the School of Architecture, *ante*, p. 19.

THE CHARLES ELIOT TRAVELLING FELLOWSHIP IN LANDSCAPE
ARCHITECTURE

For detailed statement as to this Fellowship see the Announcement of the School of Landscape Architecture.

RESIDENT SCHOLARSHIPS

The following scholarships are open to students under the Faculty of Architecture. The income of these scholarships is payable at the Bursar's Office, one-half *on or after January 20*, and the remainder *one week before Commencement*; but the income will be first applied to the settlement of any College term-bills issued and unpaid, and any balance then remaining will be paid in money. Holders who want an advance on the income of a fellowship or scholarship, to help pay the tuition fee, should apply in person at the Bursar's Office promptly at the beginning of the academic year.

An applicant for any scholarship, not already a student at Harvard University, should accompany his application with an official record of his credits and with testimonials from those best qualified to speak of his qualities, attainments, and promise, and by such other documents as he may think proper to send.

Applications for scholarships in Architecture should be addressed to Professor C. W. KILLAM, Chairman, Robinson Hall, Cambridge, Mass., and for scholarships in Landscape Architecture to Professor J. S. PRAY, Chairman, 50 Garden St., Cambridge, Mass., and, to be considered at the first assignment, should be received before March 1, but later applicants may be awarded a scholarship if vacancies occur. Application blanks may be obtained from these officers.

Every holder of a scholarship is expected to retain it throughout the year for which he is appointed, unless compelled to withdraw for stringent reasons ; and to engage in no other occupation, without permission. A student who resigns a scholarship in the course of a year has *no claim to any part of the stipend* of the scholarship. The circumstances of his change of plans are, however, taken into consideration.

THE AUSTIN SCHOLARSHIPS IN ARCHITECTURE ; two, with an income of three hundred and fifty dollars each. Established in 1902, by a vote of the President and Fellows, from the income of the EDWARD AUSTIN Fund.

THE AUSTIN SCHOLARSHIP IN LANDSCAPE ARCHITECTURE ; with an income of three hundred and fifty dollars. Established in 1902, by a vote of the President and Fellows, from the income of the EDWARD AUSTIN Fund. This scholarship is usually awarded to a student who has already been at least one year in the School.

THE FRANCIS HATHAWAY CUMMINGS SCHOLARSHIP in LANDSCAPE ARCHITECTURE ; with an income of three hundred and fifty dollars. Founded in 1898, with a principal of five thousand dollars, by CHARLES A. CUMMINGS and MARGARET K. CUMMINGS, in memory of their son, FRANCIS HATHAWAY CUMMINGS, of the Class of 1895. The income of this scholarship is to be used for the benefit of students of proved merit who hold the degree of Bachelor of Arts from Harvard College, who need assistance, and who wish to prepare for the efficient practice of Landscape Architecture.

THE JOSEPH EVELETH SCHOLARSHIPS ; with an income of two hundred and fifty dollars each. Eight scholarships have been established on this foundation, of which one is assigned to the School of ARCHITECTURE. Founded from the residuary bequest, received in 1896, of thirty-seven thousand eight hundred and ninety-seven dollars and fourteen cents, made by JOSEPH EVELETH, of Boston and Watertown, Sheriff of Suffolk County from 1840 to 1855 except in 1853 ; "for aiding deserving and indigent young men in obtaining an education in said College or any of the schools connected therewith."

THE SCHOLARSHIPS FOR SPECIAL STUDENTS IN ARCHITECTURE; three, with an income of two hundred dollars each. Established by vote of the President and Fellows. Appointments are made by the President and Fellows on the recommendation of the Faculty of Architecture. They will be awarded as the results of a competition in architectural design. Candidates must have fulfilled all the requirements demanded of other special students. See p. 22.

THE UNIVERSITY SCHOLARSHIPS (ARCHITECTURE AND LANDSCAPE ARCHITECTURE); six, with an income equal to the tuition in any case, maintained by the University under votes of the President and Fellows.

Fellowships and Scholarships available in other Departments of the University as well as in the Schools of Architecture and Landscape Architecture.

THE FREDERICK SHELDON FUND FOR TRAVELLING FELLOWSHIPS AND SCHOLARSHIPS. The income of this Fund is available for holders of any degree from Harvard University.

The income is not to be assigned in scholarships of fixed amounts, but, "on recommendation to the Committee from the various Departments and Schools, to be assigned as the Committee shall deem most expedient for purposes of investigation or study either in this country — outside Harvard University — or abroad." Candidates must be members of the University at the date of appointment. Application in behalf of a student in any School, Division, or Department of the University must be made through the Dean or Chairman of that School, Division, or Department, to the Chairman of the Committee, Dean L. B. R. BRIGGS, and may be made at any time.

THE VICTOR EMANUEL CHAPMAN MEMORIAL FELLOWSHIP; with an income at present of twelve hundred dollars. Founded in 1917 by a number of persons who gave jointly the sum of approximately twenty-five thousand dollars in memory of VICTOR EMANUEL CHAPMAN, of New York, of the Class of 1913, who was killed in action over Verdun, June 23, 1916, while a member of the Flying Corps of the French Army. This fellowship is to be assigned to a French youth (or youths) for study in some department of Harvard University.

THE JOSEPH HODGES CHOATE MEMORIAL FELLOWSHIP; this fellowship, with an income of eighteen hundred dollars, was established in 1919 by the Harvard Club of New York City in memory of JOSEPH HODGES CHOATE of the Class of 1852, American Ambassador to Great Britain from 1899 to 1905. It is to be awarded, upon the nomination of the Vice-Chancellor of the University of Cambridge, England, to a British subject coming from the University of Cambridge to study in any department of Harvard University. The terms at present require that the candidate shall be either a Bachelor of Arts of not more than three years' standing from the time of taking his degree, or a matriculated undergraduate of not more than three years' standing from the date of his matriculation.

THE WILLIAM STANISLAUS MURPHY SCHOLARSHIPS; two hundred and fifty dollars each. Founded by WILLIAM STANISLAUS MURPHY, of the Class of 1885, to be used for the collegiate education of men of the name of Murphy who, in the judgment of the Faculty, prove deserving of this kind of encouragement. These scholarships are available for students in any department of the University.

Application should be made to Dean L. B. R. BRIGGS, the Chairman of the Committee on General Scholarships and on the Sheldon Fund.

THE CHARLES ELLIOTT PERKINS SCHOLARSHIP; with an income of four hundred and fifty dollars, "to be offered each year to a graduate of an Iowa college or university, in any of the graduate or professional departments of Harvard University."

THE SCHOLARSHIP OF THE HARVARD CLUB OF CHICAGO; with an income of three hundred and fifty dollars. Maintained since 1893 by the HARVARD CLUB OF CHICAGO; to be awarded to a graduate of an Illinois university or college who wishes to pursue graduate studies at Harvard University. The appointment is made annually by a committee of the Club, usually in April. Application must be made before January 1 by letter to the Secretary, including an account of the student's educational career, a statement of the graduate course intended to be pursued, and letters endorsing the application.

THE JAMES A. RUMRILL SCHOLARSHIP; with an income at present of two hundred and seventy-five dollars. Founded in 1909 by

Mrs. JAMES A. RUMRILL in memory of her husband, JAMES AUGUSTUS RUMRILL, of Springfield, Mass., of the Class of 1859, will be offered each year to a properly qualified graduate of a college or university in Virginia, North Carolina, South Carolina, Florida, Georgia, Tennessee, or Kentucky, who desires to pursue his studies in one of the graduate departments of Harvard University.

THE BRIGHT SCHOLARSHIPS; with an income of two hundred and fifty dollars each. To be given to students in any department of the University descended from HENRY BRIGHT, Jr., of Watertown, Mass. (died 1686). Preference is given to those who bear the name of Bright.

THE PRINCETON FELLOWSHIP; with a stipend of five hundred dollars. From a graduate of Princeton University, to be awarded to a graduate of that University studying in any department of Harvard University.

THE DANIEL A. BUCKLEY SCHOLARSHIPS; with an income of two hundred dollars each, for graduates of the public schools of the City of Cambridge.

For further information regarding the award and tenure of these scholarships, and regarding tuition fees and expenses; assignment of College rooms; special collections, museums, and department libraries, see the University Catalogue and the pamphlet entitled "Students' Expenses." Copies of any of these University publications may be had, on request, from Mr. HAROLD MURDOCK, Director of the Harvard University Press, Randall Hall, Cambridge, Mass.

THE APPOINTMENT OFFICES

The University Appointment Office recommends men for teaching, research, social service, or other educational work.

The Alumni Association Appointment Office recommends men for business positions, commercial or technical. Its facilities are open to all past or present members of the University.



3 0112 110189195

OFFICIAL REGISTER OF HARVARD UNIVERSITY

[Entered March 6, 1913, at Boston, Mass., as second-class matter,
under Act of Congress of August 24, 1912.]

**Issued at Cambridge Station, Boston, Mass., three times each,
in January, February, July, August, and September; eight
times each, in March, April, May, and June; twice each, in
October, November, and December.**

These publications include : —

**The Annual Reports of the President and of the Treasurer.
The Annual University Catalogue.**

**The Annual Catalogues of the College and the several Pro-
fessional Schools of the University; the Descriptive Pam-
phlet, the Announcements of the several Departments;
etc., etc.**